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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,052	10/24/2001	Masayuki Aizawa	51455	6670

7590 10/20/2003

Tyco Technology Resources
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EXAMINER

MCCAMEY, ANN M

ART UNIT PAPER NUMBER

2833

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.:

10/004,052

Applicant(s)

AIZAWA ET AL.

Examiner

Ann M McCamey

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MAX

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 13, 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Beaman et al. (US 6,380,485).

Regarding claim 16, Beaman et al. (Fig. 8) disclose an electrical cable terminal part, comprising:

an electrical cable 810 having a single drain wire 811 and differential transmission signal wires 814, 815 with a differential impedance, and a stripped end 812, 813 exposing an outer surface of the wires; and

a tube 816 positioned over a portion of the electrical cable and a portion of the outer surface of the wires that maintains the differential impedance of the wires having an exposed outer surface, the tube positioned such that front end portions of the differential transmission signal wires are receivable on a second side of a circuit board.

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Regarding claim 17, Beaman et al. disclose the drain wire is disposed at an equal distance from the differential transmission signal wires.

Regarding claim 18, Beaman et al. disclose the tube extends over the outer surface of the wires to a position proximate the circuit board.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaman et al. in view of Selmeski (US 5,371,322).

Regarding claim 1, Beaman et al. disclose the invention substantially as claimed, but do not disclose the tubing being a heat-shrink tube covering. Selmeski teaches heat shrink tubing for securing wires together. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tubing of Beaman et al. with a heat shrink tube as Selmeski teaches to secure the wires together more tightly.

Regarding claims 2-4 and 10, Beaman et al. do not explicitly disclose the materials of the shielding covering. It would have been obvious to one having ordinary skill in the art to choose the claimed materials, since it has been held to be within the

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general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 5, Beaman et al. disclose the drain wire being located in a position that is separated from the core wires of the differential transmission signal wires by a distance corresponding roughly to the thickness of the outer insulating covering the core wires (Fig. 8).

Regarding claim 7, Beaman et al. disclose the differential transmission signal wires and the drain wire being twisted together inside the shielding covering (Column 1, Line 24).

Regarding claim 8, Beaman et al. disclose the drain wire being single wire.

Regarding claim 9, Beaman et al. do not disclose the single wire being formed form a plurality of wires twisted together. However, it is well known in the art that wires can be formed in many ways, one of which being a plurality of wires twisted together.

Regarding claim 12, Beaman et al. disclose the drain wire being disposed at an intermediate point between the differential transmission signal wires (Fig. 8).

Regarding claim 13, Beaman et al. disclose the heat shrink tube extending over the exposed area to a position proximate the circuit board (Fig. 8).

Regarding claims 6 and 15, the method is inherent to the device and is rejected on the same grounds as the device.

Respons to Arguments

Applicant's arguments filed 8/8/03 have been fully considered but they are not persuasive.

Regarding Applicant's argument that Beaman et al. does not teach all the elements of the claims, as it applies the 102 and 103 rejections, particularly the limitation of the signal wires being receivable on one side of a circuit board and the drain wire on a second side, the term "receivable" only requires an ability of the wires to perform the function of "receiving." Beaman et al. does not explicitly show the signal and drain wires being received on opposing sides. However, the flexibility and length of the drain wire allows the drain wire to be received on an opposing side of a circuit board from which the signal wire is received. Thus, the signal and drain wires are receivable on opposing sides of a circuit board, meeting the limitation of the claim.

Regarding Applicant's argument that the heat shrink tube of Selmeski does not teach maintaining equal distances between the differential transmission signal wires and drain wire, the teaching of Selmeski is relied upon to teach the use of the heat shrink tube material instead of another material (such as metal, as taught in Beaman et al.). Beaman et al., the base reference, is relied upon to teach the distances between the wires being maintained, which structurally implies that the differential impedance be maintained. Thus, the combination of Beaman et al. in view of Selmeski's teaching of a heat shrink material would result in the claimed structure, and the rejection is deemed proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann M McCamey whose telephone number is (703) 305-3422. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AMM

October 15, 2003



RENEE LUEBKE
PRIMARY EXAMINER